

GREEN RIVER FLOOD CONTROL ZONE DISTRICT



1999 ANNUAL REPORT



October
2000



Green River Basin Program
Serving Auburn, Kent, Renton, Tukwila and King County

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INTRODUCTION AND BACKGROUND

The purpose of this annual report is to provide an accounting of 1999 Green River Flood Control Zone District (District) financial activity. An annual reporting of District revenues and expenditures is required per Section 2.1.4 of the Green River Basin Program Interlocal Agreement (ILA), adopted on June 30, 1992 by King County and the Green River Valley cities of Auburn, Kent, Renton and Tukwila. The report also provides a summary of the major repairs made to the District's flood protection facilities on the Green River in 1999.

In 1978, King County and the Green River Valley cities signed an interlocal agreement to form the Green River Basin Program (GRBP), an interjurisdictional flood control and drainage program for the lower Green River Basin. The 1992 ILA supports the continuation of the Green River Basin Program and has a ten-year duration.

Prior to 1991, the Green River Basin Program was funded by a cost-share arrangement between King County and the Green River cities. The Green River Basin Program is now funded by the District.

GREEN RIVER FLOOD CONTROL ZONE DISTRICT

The Green River Flood Control Zone District was formed in 1966 and activated in December 1990. The purpose of the District is to provide a funding base for operation and maintenance of levees, revetments and pump stations on the Green River and to fund administration of the Green River Basin Program.

The District encompasses areas within seven cities, five Metropolitan King County Council Districts, four State legislative districts, three Congressional districts and portions of unincorporated King County. It approximates the drainage basin of the lower Green River Valley, contains some 44,000 acres, and has a total assessed valuation in 2000 of \$15.5 billion. A map of the District is shown on page 3 of this report.

In accordance with state law regarding special purpose districts, the Green River Flood Control Zone District is a quasi-municipal corporation, legally separate from King County. However, the Metropolitan King County Council acts as the District's Board of Supervisors.

Flood Summary for Water Year 2000 (10/1/99-8/23/00)

The Green and Duwamish River had another relatively moderate year for flood events due largely to the moderating effects on northwest weather from La Niña. With typical years experiencing on average two to three flood events per season and Phase III events on average occurring once every two years, this flood season (1999-2000) was less severe. The Green River had two flood events this year, both were Phase III events and occurred within 20 days of each other. The first flood event entered Phase I in the evening on November 25 and continued to rise sharply. By midnight on the November 26, the Green River was entering Phase II and still rising. On the morning of November 27, the Green River entered Phase III peaking at 4:00 a.m. at approximately at 9,100 cubic feet per second (CFS). The river then receded and dropped below 5,000 CFS on November 29 in the early evening. Thirteen days later after the first flood

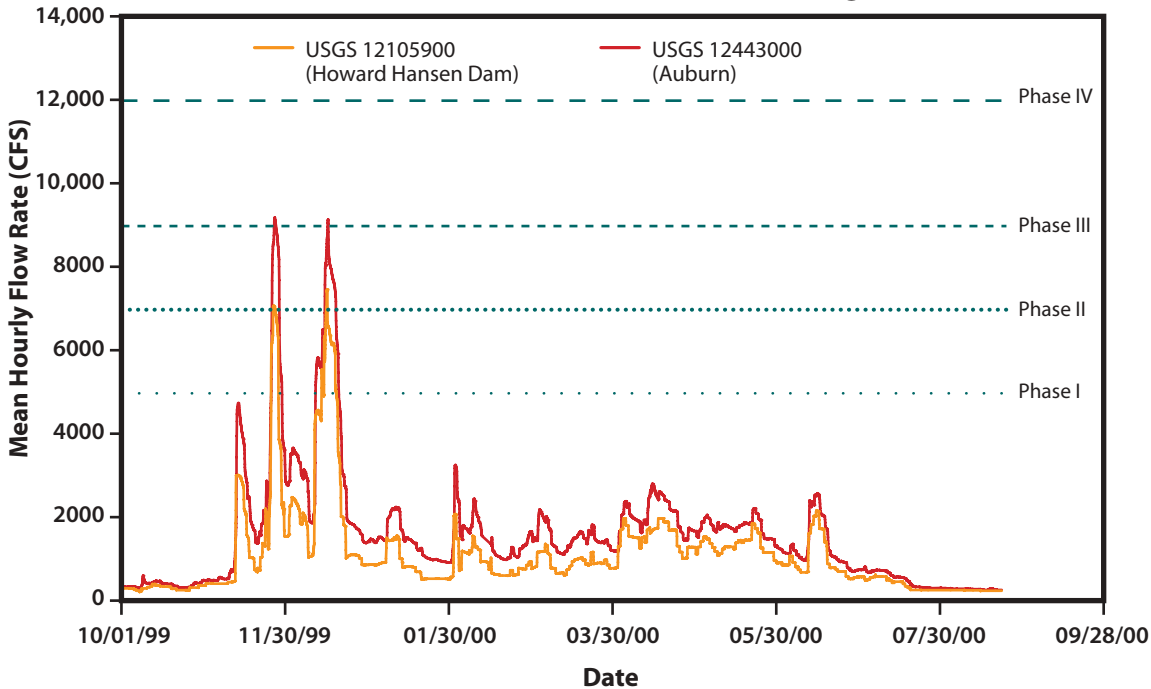




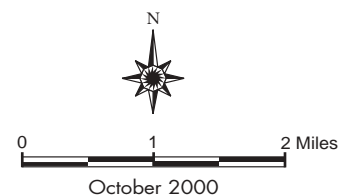
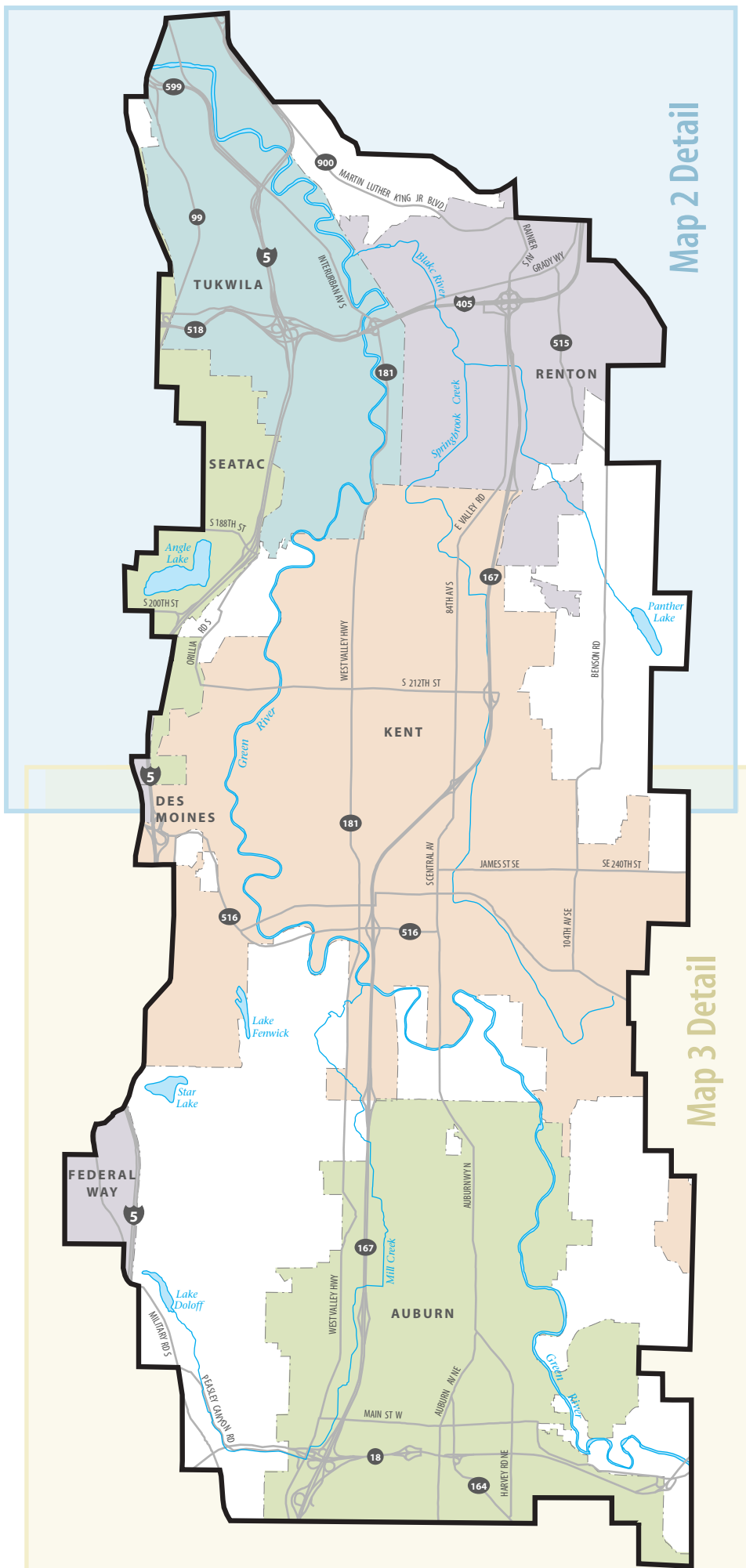
event receded below 5,000 CFS the second event was imminent. On the morning of December 12, the Green River entered Phase I. By late afternoon on December 15, the river entered Phase II, and subsequently entered Phase III approximately 24 hours later cresting just under 9,100 CFS. Similarly, it took four days for the Green River to recede below the 5,000 CFS threshold. The majority of the contribution of flow in the Green River near Auburn (USGS 12113000) is from the upper watershed, which contains the Howard Hansen Reservoir, that is managed by the U.S. Army Corps of Engineers. However, it appears that the release rates from the reservoir (USGS 12105900) were limited to 7,000 CFS except for one seven hour period that the U.S. Army Corps of Engineers increased the release rates to approximately 7,400 CFS during the second Phase III flood event. Approximately 600+ CFS of this flood peak is due to inflow from local tributaries below the Howard Hansen Reservoir, primarily from Soos Creek and Newaukum Creek sub basins. A third, minor storm event occurred in mid-November and was observed to be very close to a Phase I flood event and peaked at 4,725 CFS.

These two Phase III and near Phase I flood events were not rain-on-snow generated. Temperatures were mild throughout the watershed except the higher elevations in the upper watershed. Gages in the middle and lower Green/Duwamish rivers recorded temperatures above freezing before all the flood events of water year 2000. In general, precipitation was normal with slightly more precipitation in November and December.

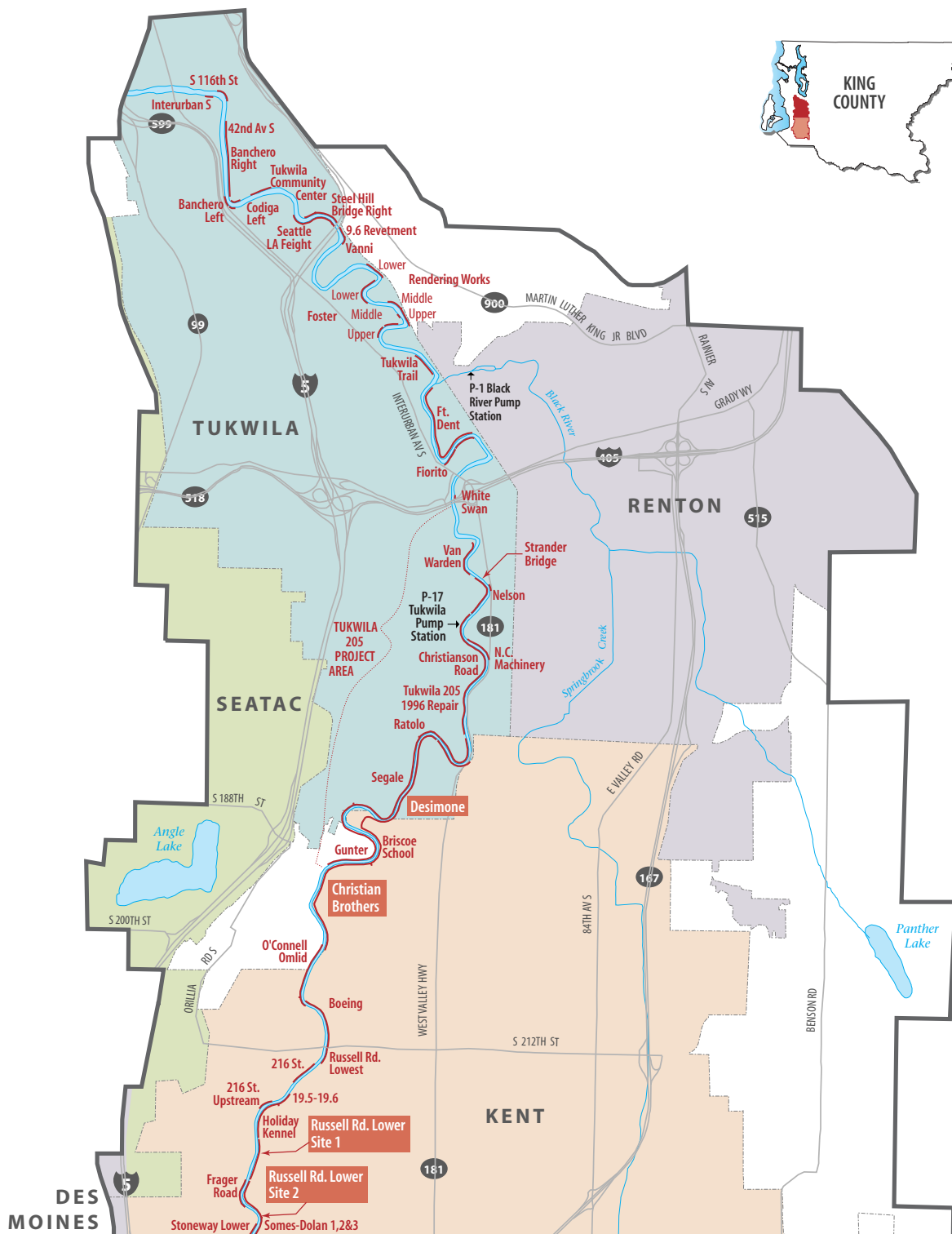
GREEN RIVER MEAN HOURLY FLOW RATES FOR WATER YEAR 2000 Howard Hansen Dam and Auburn Gages



Map 1 GREEN RIVER FLOOD CONTROL ZONE DISTRICT

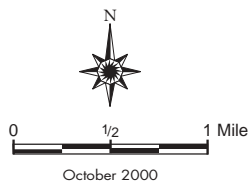


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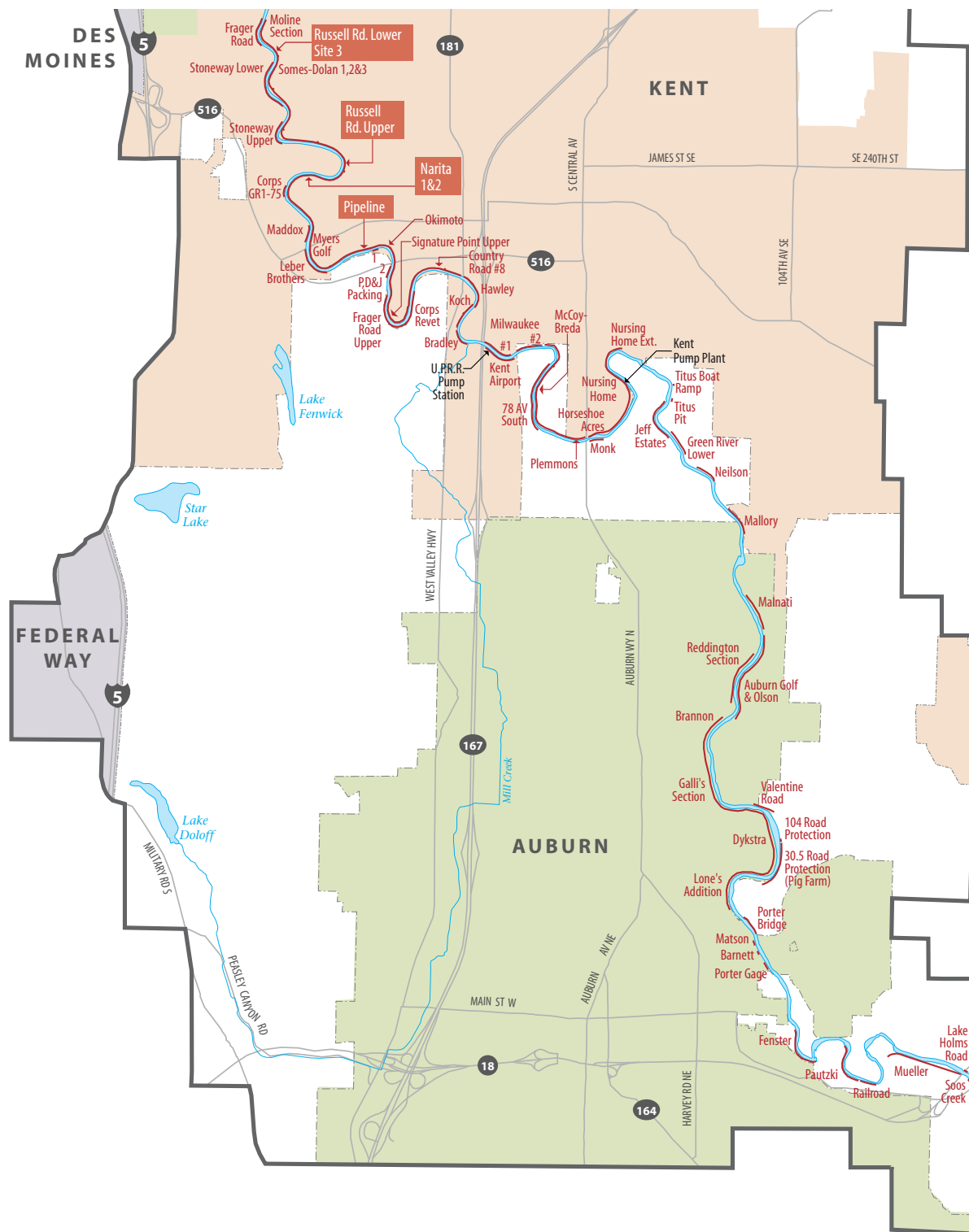


Map 2
GREEN RIVER FLOOD
CONTROL ZONE DISTRICT (FCZD)
North Portion

- Name 1999 Projects
- Levee/Revetment
- Lake/River
- Stream
- Major Road



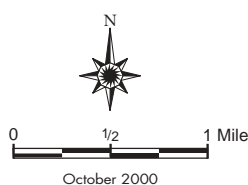
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Map 3
GREEN RIVER FLOOD
CONTROL ZONE DISTRICT (FCZD)
South Portion



- Name 1999 Projects
- Levee/Revetment
- Lake/River
- Stream
- Major Road



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1999 ACCOMPLISHMENTS

Green River Basin Program and Green River Flood Control Zone District work program accomplishments included:

- Continued coordinating response to two federally declared flood disasters (November of 1995 and February of 1996).
- Implementation of the Flood Response Manual and Post-Flood Recovery Plan, including enhanced coordination with the Green River cities to share flow information during flood events and participation in preliminary and formal damage assessments.
- Completion of annual Green River maintenance assessments and development of a high priority maintenance project list with involvement of the Basin Technical Committee (BTC).
- Completed major project repairs and projects at a total cost of \$1.2 million.
- Completed Phase 1 of the Narita Levee Biostabilization project with funding assistance from Washington State Department of Ecology's Flood Control Assistance Account Program.
- Worked with King County's applicant agent (KC Office of Emergency Management) to track project costs and provide documentation for federal flood disaster fund reimbursement.
- Completed Federal Emergency Management Agency (FEMA) alternative projects for purchase of floodplain lands and flood management equipment.
- Produced Annual Reports for the U.S. Army Corps of Engineers' 205 program.
- Conducted vegetation management at selected facility sites to maintain their eligibility for the U.S. Army Corps of Engineers' PL84-99 emergency repair cost sharing.
- Tracked results from smolt counter at the Black River pump station in cooperation with the cities of Kent and Renton.
- Ongoing development, monitoring, and tracking of budget for GRBP and District.
- Ongoing coordination of Basin Technical Committee and Basin Executive Committee meetings.
- Provided administrative and technical assistance to the WRIA 9 Steering Committee and Technical Work Group.
- Ongoing participation with WRIA 9 Salmon Conservation Planning efforts and representation of Green River Flood Management issues in this process.
- Coordination of planning activities and meetings with the Green/Duwamish Watershed Forum.
- Performed lead agency administrative functions and implemented 2nd phase of \$275,000 U.S. Department of Housing and Urban Development Community Development Block Grant contract agreement for Desimone levee repair work in the City of Tukwila.
- Coordinated project review with recreational boater safety interests.
- Participated on an interagency Levee Vegetation Management Committee which was established to pursue a regional variance from the Army Corps of Engineers for PL 84-99 standards for levee vegetation.
- Prepared Biological Assessment for Endangered Species Act (ESA) review of proposed 1999 and 2000 projects and cooperated with the King County Biological Review Panel in their evaluation of these projects.
- Established contract with U.S. Fish and Wildlife Service for training in project monitoring and initiated data collection at facility repair sites.





1999 BUDGET

AUTHORIZED 1999 BUDGET

The 1999 Green River Flood Control Zone District budget was approved in Resolution GR22, adopted by the Metropolitan King County Council on December 14, 1999. The Metropolitan King County Council serves as the District's Board of Supervisors.

The District's authorized budget was based on Basin Executive Committee (BEC) recommendations adopted at their October 14, 1999 meeting based on \$710,459 in estimated District property tax levy revenues. Together with the \$239,914 authorized to supplement programmatic assignments and river facility repairs from the District's undesignated fund balance for river facility repair expenditures, the total District budget authorized for 1999 was \$950,373.

Per the Resolution, the District's budget was structured into the following categories:

APPROVED 1999 BUDGET EXPENDITURES

District Administration:	\$213,052
District Maintenance:	
• Pump Plants	291,873
• River Facility Repair Projects	141,911
River Facility Repair Projects -- Fund Balance Transfer:	\$239,914
Contribution to Designated Fund Balance:	
• Local Flood Match Funds	11,000
• Pump Plant Equipment Repair/Replacement	39,300
Contribution to Undesignated Fund Balance:	\$13,323
TOTAL:	\$950,373

The District's 1999 work program was developed in excess of the budget to allow for additional expenditures that would reflect federal and state matching funds leveraged for river facility repairs. Specifically, \$975,634 in state and federal funds were contributed to river facility repair projects that, combined with the District's authorized budget, more than doubled the expenditures of the District's work program.

Ad Valorem Tax Levy

This District is funded by an ad valorem tax levy on all properties within its boundaries. The District levy rate in 1999 was 0.05209 cents per \$1,000 of assessed property valuation. Therefore, for example, the owner of a \$200,000 home in the District paid approximately \$10.42 to the District levy. The 1999 levy was held to levels not exceeding Referendum 47 limitations.

Actual 1999 District collections totaled \$690,630. The difference between projected and actual collections is due to various factors which affect general property tax collects (e.g., assessed property value fluctuations, delinquencies, new construction).

For a full accounting and description of the District's actual expenditures, revenues, and year-end 1999 fund balance total, see the 1999 Year-End Revenue and Expenditure Report and the 1999 Year-End Fund Balance sections of this report.

1999 MAINTENANCE PROJECTS

The total cost for maintenance projects in 1999 was \$1,221,156. The District contributed approximately \$245,522 to 1999 maintenance projects and the remaining funds were contributed by federal and state grants, and project support from the District cities. Requests for additional funding from state and federal disaster funds were submitted and subsequently received for several projects that exceeded estimated costs established in the initial federal damage survey reports.

PROJECT	TOTAL COST	OTHER REVENUE	GRFCZD FUNDS
Desimone	\$309,608	\$172,924	\$136,684
Narita	\$150,539	\$70,418	\$80,121
Pipeline	\$354,922	\$106,538	\$248,384
LWD - Christian Brothers	\$15,341	\$15,341	\$0
LWD - Russell Road Upper	\$12,513	\$12,513	\$0
LWD - Russell Road Lower	\$20,660	\$0	\$20,660
Other Repairs and Projects	\$357,573	\$238,465	\$119,108
FEMA Reimb for prev year repairs		\$359,435	(\$359,435)
TOTAL	\$1,221,156	\$975,634	\$245,522

The District performed \$1,221,156 worth of repairs at a cost of \$245,522 to the District. Funds were leveraged from other supporting agencies such as FEMA (State and Federal), DOE FCAAP Grant, and U.S. Army Corps of Engineers.

FOR ALL THE 1999 PROJECTS

Projects were reviewed for impact to chinook salmon as a result of the National Marine Fisheries Service's (NMFS) listing of Puget Sound chinook as threatened under the Endangered Species Act. The review was conducted by the King County Biological Review Panel. Formal concurrence with NMFS was obtained on all projects involving in-water construction. Hydraulic Project Approval for each project was obtained from the Washington Department of Fish and Wildlife. Shoreline management requirements were addressed with the local jurisdiction. The location, orientation, and placement of the logs were reviewed with the Boater Safety Advisory Committee. A brief description of each repair project is provided on the following pages.



Desimone Levee Repair

River Mile: 14.45, Right Bank

Cost: \$309,608



The Desimone Levee was moved approximately 20 feet landward and a trail was paved along the top.



The Desimone Levee was reconstructed to provide greater slope stability and to allow for future planting of native riparian vegetation.

Repairs begun in 1998 were continued in 1999 with the completion of setback levee relocation throughout the 1,300 foot length of the repair project. The 700 feet of setback levee construction completed in 1998 was continued on additional properties to the north and south, totaling an additional 600 feet of levee reconstruction. Working cooperatively with the City of Tukwila on project design, trail considerations, and construction, 1,300 linear feet of oversteepened levee was moved approximately 20 feet landward from its original position, in accordance with easement negotiations completed over a two year period with the affected property owners.

Additional earthwork construction also included the excavation and removal of the original levee material, creating a midslope bench located approximately ten vertical feet above the Ordinary High Water Mark. This earthwork geometry was recommended for slope stability purposes in geotechnical studies completed for this work in July 1998 by the consulting firm of Shannon and Wilson. The midslope bench has been specified by Shannon and Wilson as meeting federally published factors of safety for both partial inundation and rapid drawdown conditions, which have been determined to be the two most significant slope stability concerns affecting Green River levees. This geometry will also allow the future establishment of riparian tree cover in accordance with published standards for eligibility of non-federal levees for future federal rehabilitation assistance.

Work continues during 2000 on preparation of a Biological Assessment for this and other levee and revetment repairs within the District, for eventual review and approval of instream portions of the proposed overall levee repairs at this site by the National Marine Fisheries Service, and also by the U.S. Fish and Wildlife Service (collectively, "the Services"), in order to achieve compliance with Section 7 of the Endangered Species Act (ESA). ESA listing of both chinook salmon and bull trout populations within the Green River watershed will require issuance of a Biological Opinion by the Services, including an incidental take provision for any instream affects of the proposed construction on these species. It is anticipated this work will be completed in 2001, allowing for instream levee toe buttress repair and placement of Large Woody Debris for habitat restoration. Following this work, dense plantings of native riparian species will be installed throughout the setback levee, lower embankment, and midslope bench areas.

Narita Levee Repair River Mile 21.15, Right Bank Cost: \$150,539

With the willing cooperation of the Kent Parks Department, the Narita Levee was relocated up to 50 feet landward from its original oversteepened, unstable slope position, for an overall reach length of approximately 400 feet. Slopes were regraded to more stable angles of repose, ranging from 2H:1V to 3H:1V overall. Following levee relocation, a midslope bench was excavated to provide for additional slope stability benefits, as specified in consulting studies performed by Shannon and Wilson for the District. The bench will also provide opportunities for future restoration of riparian tree cover in the repair reach, while maintaining eligibility for potential federal participation in future levee rehabilitation efforts.

A significant portion of the regraded embankment slope and bench area was planted with a variety of native tree and shrub species with the assistance of volunteers, and with the participation of the King Conservation District. Final site restoration also included grading and paving the relocated recreational asphalt trail.

Future project work will include reconstruction of the flood-damaged instream levee toe buttress, together with installation of Large Woody Debris to restore instream habitat values. This work requires the preparation of a Biological Assessment (BA) to address federal listing of both chinook salmon and bull trout populations in the Green River as threatened under the terms of the Endangered Species Act. It is anticipated the BA process will be completed and instream work will proceed during 2001. Final slope grading and riparian revegetation efforts will be performed following completion of the instream work.



The Narita levee was relocated up to 50 feet landward and slopes were regraded to enhanced overall slope stability.



The midslope bench greatly enhances slope stability for Green River levees like Narita.



Volunteers revegetated the slopes and bench areas with a variety of native riparian tree and shrub species.



LARGE WOODY DEBRIS ADJUSTMENTS

Christian Brothers Revetment

River Mile 17.13, Right Bank

Cost: \$15,341

Instream work in 1999 was limited to repositioning and securing Large Woody Debris (LWD) originally placed at this and other sites in 1998 for habitat restoration purposes, and to function as hydraulic flow deflectors protecting the revetment toe buttress from erosion. Logs secured parallel to the bankline in 1998 had originally been installed with anchor chains only at the upstream end, with the intention that they would waterlog over time and sink into place along the toe. Extended periods of high flows during the winter of 1998-1999 floated many of these logs up onto the lower bankline instead. Other logs swung somewhat sharply into the current. Repositioning these logs was reviewed with the Boater Safety Advisory Committee established for this purpose.

Work in 1999 consisted of replacing the dislocated LWD within the water column and securing them more firmly with additional anchor chains to prevent their future dislocation in this manner. Anchor chains were attached by crews working from small boats, with log movement accomplished using cable chokers manipulated by a track mounted excavator to lift and position the logs. Results of this effort were quite favorable overall following the winter of 1999-2000.



The logs at the Christian Brothers site function as instream flow deflectors for erosion protection and provide valuable habitat benefits for a variety of salmonid and other aquatic species.

LARGE WOODY DEBRIS ADJUSTMENTS

Russell Road Lower Revetment

River Mile 19.0, Right Bank

Cost: \$20,660

Floodwaters during the winter of 1998-1999 flipped several logs up onto the lower embankment at this site, before they had a chance to waterlog and sink into position as intended. A small track-mounted excavator operating from the midslope bench constructed in 1998 repositioned the logs parallel to the bankline, within the water column. County work crews operating from a small boat placed additional anchor chains to firmly secure the floating logs to anchor logs previously imbedded into the bankline during the 1998 repairs. Placement of the logs was reviewed with the Boaters Safety Advisory Committee. The newly anchored logs remained securely in place following the winter flows of 1999-2000.



Maintenance access to instream portion of the facility was greatly enhanced through construction of a midslope bench in 1998. This allowed ready access to the floating LWD installations.



Crews working from a small boat attached additional chains to imbedded anchor logs to firmly secure the floating logs parallel to the bankline



LARGE WOODY DEBRIS ADJUSTMENTS

Russell Road Upper Revetment

River Mile 20.42, Right Bank

Cost: \$12,513

Instream flow deflector and habitat logs placed at this site in 1998 were dislocated by the action of floodwaters during the winter of 1998-1999. Work in 1999 consisted in repositioning the logs parallel to the bankline, and in securing them to anchor logs with additional lengths of deck-lashing chain. The anchor chains were placed by work crews operating from a small boat. Log manipulation was accomplished using choker cables attached to a track-mounted hydraulic excavator. The track hoe was able to operate efficiently from the midslope bench created during the 1998 repairs. Not only does this feature enhance overall slope stability and provide space for planting riparian vegetation, it is ideally suited for maintenance actions like these that require access to instream portions of the facility.



County work crews attach additional anchor chains to instream LWD. The floating logs are secured parallel to the bankline and firmly attached to embedded anchor logs in order to serve both as flow deflectors to protect against toe erosion, and also to perform as instream habitat restoration elements.

Pipeline Revetment Repair/Levee Setback River Mile 21.9, Right Bank Cost: \$354,922

Extremely oversteepened revetment slopes were regraded to a 2.5H:1V overall angle of repose to establish a stable slope condition at this vulnerable site location. This required that the fill prism defining the levee structure be relocated landward, encroaching into a large detention pond serving the Riverwood Apartment complex in Kent. Following two years of negotiations with the affected property owners, a new easement was secured to allow for this work in 1999. The City of Kent cooperated in this effort, which resulted in a relocation and repaving of 500 feet of recreational asphalt trail surface. The original City of Kent trail was maintained in active use with deployment of safety flaggers throughout the construction period, with removal of the old trail and levee prism completed following reconstruction of these facilities in the new, setback alignment. In all, the levee crest was relocated up to 20 feet from its previous, oversteepened location along the riverbank. This required importation of approximately 4,500 cubic yards of clean levee fill.

Following paving of the relocated trail the old trail surfacing was excavated and sent to an asphalt recycling location. The old levee prism was then excavated and hauled offsite for disposal at a topsoil company. Excavation disclosed structurally unsound, saturated silts and clays in the midslope area. These were addressed through overexcavation and replacement with additional, imported structural fill materials, resulting in both a midslope bench and a second, lower bench situated immediately above the Ordinary High Water Mark of the river.

The resulting levee structure is vastly more stable and secure against ongoing flood damages than the original structure it replaced. This is especially important as widespread flooding of the eastern portions of the Green River Valley occurred in 1965 following a levee breach in this vicinity. Future project phases will include levee toe buttress reconstruction, instream habitat log placement, and planting of native riparian vegetation. A Biological Assessment for this work is currently in preparation to address requirements of the Endangered Species Act, with federal approval expected for work to be completed in 2001.



The damaged levee structure was removed and a sequence of two midslope benches excavated to provide for enhanced slope stability and future habitat enhancement options. Unstable embankment soils were overexcavated and structural fills placed to accomplish this work.



The finished embankment slope and midslope bench areas were covered with erosion control fabric and hydroseeded. Winter flows during the 1999-2000 flood season fully covered both benches for extended periods of time. Stability performance exceeded expectations.



1999 YEAR-END REVENUE AND EXPENDITURE REPORT

1998 YEAR END FUND BALANCE

The District's 1999 Budget started with a fund balance as of December 31, 1998 in the amount of \$832,763, as reported in the District's 1998 Annual Report. Of this amount, \$345,730 was set-aside in a designated fund balance apportionment for pump station repairs and equipment replacement (\$270,123) and the balance as a source of matching funds to leverage potential future state and federal assistance for flood damage repairs (\$75,607). The remaining \$487,033 of fund balance was undesignated.

ACTUAL 1999 REVENUE

The total District revenue for administration and maintenance activities in 1999 totaled \$1,704,780. This included \$690,630 in actual levy revenue – \$19,829 less than projected in the adopted 1999 budget; \$38,516 in interest income from the undesignated fund balance; and \$975,634 in state and federal matching funds for present and past river facility repairs.

1999 Actual Levy Revenue:	\$690,630
Interest Income from Undesignated Fund Balance:	38,516
River Facility Repair Project Costs - Federal and State Funds:	975,634
TOTAL DISTRICT REVENUE:	\$1,704,780

ACTUAL 1999 EXPENDITURES AND CHARGES

The combined District administration and maintenance expenditures during 1999 totaled \$1,730,310. These expenditures and charges are divided into two separate budget categories: (1) administration, which includes designated and undesignated fund balance contributions; and (2) maintenance, which includes pump plant and major river facility repairs. During 1999, \$324,811 was spent on administration activities and \$1,405,499 on maintenance. These actual expenditures are further detailed below:

Administration:	\$222,672
Contribution to Designated Fund Balance:	
• Local Flood Match Funds	11,000
• Pump Plant Equipment Repair/Replacement	39,300
Contribution to Undesignated Fund Balance from Levy Collection:	13,323
Contribution to Undesignated Fund Balance from Interest Income:	38,516
Pump Plants:	184,343
River Facility Repair Project Costs–GRFCZD:	245,522
River Facility Repair Project Costs–Federal and State Funds:	975,634
TOTAL PROGRAM EXPENDITURES:	\$1,730,310

District Administration

District Administration expenditures in 1999 supported two staff positions. In addition, the administration budget provided support to all District activities, including: coordination of maintenance-related work for various projects (e.g., engineering design, permit applications, and coordination of crews and equipment), grant applications and management (e.g., Disaster Survey Reports for federal flood disaster projects, and Washington State's Flood Control Assistance Account Program; budget development and tracking; development of interlocal agreements; technical assistance to cities; preparation of the 1998 Annual Report; and ongoing coordination of BTC and BEC meetings.

ADMINISTRATIVE EXPENSES

Salaries:	\$92,644
Benefits:	23,478
Supplies:	561
Contract Services, Permits:	26,283
King County Services:	3,358
Overhead:	76,348
TOTAL:	\$222,672

District Maintenance

Maintenance budget includes pump plant maintenance as well as river repair projects.

SUMMARY OF DISTRICT MAINTENANCE EXPENDITURES

Pump Plant:	\$184,343
River Facility Repair Projects:	\$245,522
TOTAL MAINTENANCE EXPENDITURES:	\$429,865

District pump plant maintenance expenditures in 1999 included one full-time employee to maintain and operate the Black River (P-1) and Tukwila (P-17) pump plants.

PUMP PLANT MAINTENANCE EXPENSES

Salaries:	\$73,284
Benefits:	20,608
Materials and Supplies:	4,262
Goods, Services, Maintenance Repairs:	80,289
King County Services:	5,900
TOTAL:	\$184,343





River Repair Maintenance expenditures in 1999 included six District facility repairs. The District was able to leverage its funds to collect significant financial contributions from supporting agencies such as the Federal Emergency Management Agency and the Washington State Emergency Management Division.

The total cost for major repairs was approximately \$1,221,156. The District was responsible for \$245,522 of that total.

RIVER REPAIR MAINTENANCE EXPENSES

Salaries:	\$309,330
Benefits:	87,450
Materials and Supplies:	142,413
Goods, Services, Maintenance Repairs:	504,976
King County Services:	176,987
WLR Division Overhead:	-
TOTAL:	\$1,221,156
Less State and Federal Supporting Funds:	975,634
COST TO DISTRICT:	245,522

1999 YEAR-END FUND BALANCE

Due to the substantial state and federal contributions and reimbursement for the District's past and present river facility repair projects, only \$25,530 of the authorized \$239,914 in undesignated fund balance amount was spent river facility repairs and project administration. Furthermore, additions to the designated and undesignated fund balance; interest income generated during 1999 from the undesignated fund balance; and prior year adjustments allowed the District's fund balance to realize a net increase in \$59,538.

1999 FUND BALANCE ACTIVITY

1998 Year End Fund Balance:	\$832,763
Projected/Actual Levy Collection Difference:	(19,829)
1999 Admin. and River Repair Projects–Undesignated Fund Balance:	(25,530)
Prior Year Adjustment:	2,758
Contribution to Designated Fund Balance:	50,300
Contribution to Undesignated Fund Balance:	13,323
Interest Income–Contribution to Undesignated Fund Balance:	38,516
1999 YEAR END FUND BALANCE:	\$892,301
NET INCREASE TO FUND BALANCE	\$59,538

Designated Fund Balance

On July 19, 1993, the King County Council, acting as the Board of Supervisors for the District, passed Resolution No. GR1993-2 to set aside, or “designate,” \$94,230 from the undesignated District fund balance for two specific purposes:

- future use as a local match for federal and state grants in the event of a federally-declared flood disaster; and
- repair and replacement of equipment at the Green River pump stations.

Resolution No. GR1993-2 also established a process whereby \$50,300 in District funds would be set aside annually: \$11,000 for local flood match, and \$39,300 for pump plant equipment repair and replacement. These designations were consistent with the recommendation approved by the Green River Executive Committee on November 19, 1992, and are target figures based on annual District collections.

Flood match and pump repair designations to-date total \$86,607 and \$309,423 respectively for a combined total of \$396,030. (These totals include the 1999 levy contributions). These designations are consistent with Green River BEC and BTC recommendations in 1992 and Resolution No. GR1993-2, approved by the King County Council on July 19, 1993.

Undesignated Fund Balance

Additional District fund balance revenues beyond \$50,300 annually are to be used to supplement Green River maintenance activities. These funds and additional income such as that from interest or property sale are set aside in the undesignated fund for future District needs. As of December 31, 1999 \$496,271 was in the undesignated fund.

As shown by the table below, the District fund balance totaled \$892,301 at year-end. Of this amount, a total of \$396,030 has been designated over the last five years for the flood and pump purposes stated above. This leaves \$496,271 in undesignated fund balance. \$380,000 of the undesignated fund balance will be used to supplement the 2000 maintenance budget leaving an estimated \$116,271 at the end of Year 2000.

The overall need for river maintenance within the District at the end of 1999 was estimated to be roughly \$11 million. Both the undesignated fund balance and the fund balance designated for flood match provide an important means of supplementing the District's limited ability to complete necessary repair projects using only annual revenues. The District fund balance also provides additional flexibility to respond to future flood events and new requirements imposed by the Endangered Species Act for chinook salmon and bull trout recovery.





1999 FUND BALANCE SUMMARY

• Designated Fund Balance as of 12/31/99:	\$396,030
Designated Flood Match Funds	86,607
Designated Pump Equipment Funds	309,423
• Undesignated Fund Balance as of 12/31/99:	\$496,271
TOTAL FUND BALANCE AS OF 12/31/99:	\$892,301

The fund balance will help the District in this critical time of increasing expenses and decreasing Federal and State funding. The fund balance should enable the District to continue a repair program which addresses the backlog of existing facility damages (estimated to be \$11 million in repairs) in the “non-disaster” years when Federal Emergency Management Agency and State of Washington funds are not available. The fund balance dollars will also help to cover the increased cost of repairs due to new technology, increased environmental regulation, and inflation. Lastly, some of these dollars will be used to fund the additional project and programmatic reviews required by Endangered Species Act regulation, such as project monitoring of completed repair sites to ensure habitat elements are meeting performance standards.

2000 BUDGET

The 2000 Green River Flood Control Zone District budget was approved by the District Board of Supervisors (Metropolitan King County Council) on November 18, 1999 (Resolution GR23). The levy rate for 2000 is approximately 0.05 (\$0.05 per \$1,000 of assessed value). Based on this levy rate, 2000 collections are expected to total \$748,620. Per Resolution GR23, the District budget was broken down as follows:

Overhead and Administration:	\$242,092
Pump Plant Operation:	299,178
River Facility Maintenance:	157,050
Undesignated Fund Balance (Reserve):	0
Designated Fund Balance:	
• Local Flood Match Funds:	11,000
• Pump Plant Repair/Maintenance:	39,300
GRBP 2000 PROJECTED COLLECTIONS:	\$748,620

As shown above, the District budget authorized by Resolution GR23 specifies how projected revenue from the District levy will be disbursed. This resolution also specified that \$380,000 of the District's fund balance would be transferred from the fund balance to supplement the 2000 District Budget for programmatic and flood damage repair work.

ENDANGERED SPECIES ACT

The Endangered Species Act (ESA) is changing the way we think about the design of river protection facilities. In March 1999 National Marine Fisheries Services (NMFS) listed Puget Sound chinook as "Threatened" under the ESA which requires that District projects not "take" chinook. Take is defined as killing or injuring the listed species or modifying its habitat in such a way that interferes with essential behavioral patterns including breeding, feeding or sheltering. In April 2000, Bull Trout were listed as threatened as well. The NMFS announced Section 4(d) rule protective regulations on June 20, 2000 that will go into effect for Puget Sound chinook in December 2000. The 4(d) rule offers guidance on what activities may be most likely to injure or kill protected species and specifies protective measures necessary to ensure their survival. While the 4(d) rule may require additional regulations on river repair and maintenance projects, the District will continue to balance flood protection with maintaining the health of natural river systems.





2000 GOALS

2000 Green River Basin Program and Green River Flood Control Zone District work program goals include the following:

- Construct high priority river facility repairs and maintain pump plants in optimum operating conditions.
- BTC development of a high priority maintenance project list by May 2000.
- Evaluation of damages left unrepaired from December 1995 and February 1996 flood events.
- Staff 2000 Flood Patrols and River Damage Assessments as needed.
- Continued implementation of the Post-Flood Recovery Plan and Flood Response Manual.
- Ongoing coordination of monthly Basin Technical Committee meetings.
- Ongoing coordination of Basin Executive Committee meetings.
- Staffing and facilitation for the coordination of the WRIA 9 Steering and Technical Committees with the Green River Basin Program.
- Continue 3-year contract with the US Fish and Wildlife Service to monitor and assess fish impacts of District facilities and repairs.
- Apply 1999-2000 Department of Ecology Flood Control Assistance Account Program grant funds to needed repairs.
- Completion of the 1999 Annual Report.
- Continued participation in interagency Levee Vegetation Management Committee.
- Continued communication with Boater Safety Advisory Committee and coordination of necessary Committee review of projects.
- Oversee and facilitate ESA review of all proposed projects along with standard permitting and environmental review.
- Complete Biological Assessment of seven proposed projects and pursue concurrence from the National Marine Fisheries Service and the National Fish and Wildlife Service for 2000 projects.
- Cooperation in the U.S. Army Corps of Engineers' Green-Duwamish Ecosystem Restoration Study efforts when appropriate.
- Support King County Rivers Section's ESA evaluation of standard river maintenance and programs.

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